

Pivati matronam sexagenariam simili modo liberavit arthritide, qua sex menses vexata fuerat. In magno tumore fuerunt digiti continuo trementes, et brachium unum convulsionibus agitaturn est. Sed post duo minuta prima, quam vires electricitatis experta erat, tremor digitorum desit. Postero die tumor ita decrevit, ut chirothecas induere, et officio manuum fungi potuerit matrona.

Hæc adeo clara sunt, ut nullus videatur locus dubitandi de auxilio, quod medicinam sibi ex electricitate comparare posse censeo. Qua in sententia animum meum confirmat suffragium, quo iudicii plenus et in re medica versatissimus *Morgagni*, in academia *Patavina* anatomix professor, explicatum sibi a *Pivati* negotium egregie comprobavit, eumque, subministratis consiliis, impense cohortatus est ad rem medicinæ accommodatam generique humano fructuosissimam novis subinde laboribus perficiendam.

XIX. *A Letter from Mr. Henry Baker F. R. S, to the President, concerning several Medical Experiments of Electricity.*

S I R,

Read March 13.
1748.

THOUGH perhaps as many curious and well-contrived Experiments have been made in *England* as in all the other Parts of *Europe*, to discover the general Laws and Properties of *Electricity*; we have not hitherto attended to the Effects that may be thereby produced in the Bodies of living Animals, any further than

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to assure ourselves they may be killed thereby; a Supposition that Diseases may be cured by means of this Power, having met with so little Countenance amongst us, that very few Trials have been made, to ascertain what, in distemper'd Cases, it can or cannot perform. *Foreigners*, on the contrary, seem fond of believing, that the subtil electric Fluid (be it Fire, *Æther*, or whatever else) which can pervade all Bodies, and (being accumulated) even kill an Animal, in certain Circumstances, and by certain Methods of Application, may, possibly, in other Circumstances, and applied in different Degrees, and by different Methods, so operate on the Fluids or Solids, and perhaps on both, that very beneficial and salutary Effects * may result therefrom.

With this View the Abbè *Nollet* made several Experiments on living Birds, Kittens, and human Bodies; and if we may give Credit to the Accounts thereof communicated to us, he found, in every Trial, that *Perspiration* was so considerably promoted thereby, as to cause a very sensible Difference between the Weight of such Animals as had been electrified, and others of the same Kind that were treated exactly alike in every respect besides: Whence he naturally concludes, that, in Cases where it is necessary to quicken the Circulation of the Fluids, and throw off a greater Quantity of the perspirable Matter, *Electricity* must be greatly useful.

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* As is suggested by Dr. *Mortimer* in these *Transact.* n. 476, p. 479. C. M.

The Philosophers in *Italy* and *Germany* have applied their Industry to discover by Experiment, how far Electricity may, simply and in itself, be of Service in several Diseases, and likewise how far it may conduce towards conveying the more subtile and active Effluvia of useful Medicines, either into the whole Body, or into some distempered Part.—Mr. *Watson* read, last *Thursday*, before the *Royal Society*, an Abstract of the preceding Paper, sent to Dr. *Mortimer* from *Leipsic*, by Professor *Winckler*, of several Experiments to this Purpose, made at *Venice* by M. *Pivati*, and repeated afterwards by himself at *Leipsic* with the same Success. He gives Instances of saturating, by Electrification, with the *Effluvia* of Balsam of *Peru*, and of Sulphur, so as to produce very remarkable Effects; and of taking a Fit of the Gout away intirely, by conveying into the Part afflicted the sanative *Effluvia* of warm and discutient Drugs.

My ingenious Friend Dr. *Joseph Bruni*, one of the principal Physicians at *Turin*, and Fellow of our *Royal Society*, has likewise sent to me an Account, lately received by him, of Experiments made at *Rome*, and at *Bologna*; which I now, Sir, lay before you, in order to shew what Attempts to the same Purpose have been made in different Countries, and by different People.—The Doctor informs me, that at *Turin* they have repeated, with great Success, the electrical Experiments made in *England*, whereof I had sent him printed Accounts; that People all over *Italy* are busily at Work making electrical Experiments; and that, at *Bologna*, the electrical Power has been applied to the Cure
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of Diseases. He then gives me a Transcript of an Account sent him from thence in the *French* Language, which, translated, is as follows.

A Man, who had been for a whole Twelvemonth deaf of one Ear, with a continual Noise in it like the Running of Water, attended with most violent Pain whenever he lay with that Ear uppermost, coming to Dr. *Verati* for Advice, the Doctor electrified him, bringing out Abundance of fiery Sparks around the distemper'd Ear; which, in about five Minutes that the Electrification was continued, became as red as if a blistering Plaister had been applied to it. But the Redness disappeared in a few Minutes after, the Patient passed the Night with less Pain and Noise, and was perfectly cured of his Disorder.

A Footman belonging to the said Doctor, being taken suddenly ill of a violent Pain in the Head, which continued many Hours, he was thereupon electrified, the Doctor causing the Sparks of Fire to issue from the Temple wherein the Pain was felt. The Part appeared red, the Pain abated; in three Hours it was intirely gone, and has never returned since.

A Woman that nursed one of the Doctor's Children, having had a most grievous Disorder in her Eyes for some Months, with a continual Running of Water from one of them, and a constant Pain over the Eye-lid, came to the Doctor for Advice; who immediately electrified her, bringing out the
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fiery Sparks about the Eye and Eye-lid, whereby the Eye appeared very much blood-shot; but that went off in 7 or 8 Minutes. The Woman felt less Pain the following Night, and opened her Eye in the Morning more easily, and without being obliged to wipe it, as she did before: The watry Humour and Pain were much diminished; and the Doctor hoped, that, by repeating the Operation twice more, he should be able to cure her quite.

Dr. *Bruni* gives me next his Information from *Rome*; which is, that a Gentleman there cover'd the internal Surface of a Cylinder of Glass (which some use instead of a Globe) with a purgative Medicine; and that a Man, electrified therewith, found on the Spot the same Effects as if he had swallowed the Medicine. He then recommends to us in *England* to try how far the electric Power may be of Service in Distempers.

These Cases, Sir, and particularly the last, as it may to some appear extravagant and whimsical, I should have been cautious of bringing before the *Royal Society*, had you not judged it proper they should be added to those similar Accounts from other Places which were read to us last Meeting. I think neither myself nor Dr. *Bruni* answerable for the Truth of these Facts, as we relate no more than what we have received. In Truth, all the *Phænomena* in Electricity are so wonderful, that it is scarcely prudent to deny the Possibility of any Accounts concerning it, till we have made Experiments carefully ourselves. We are *very sure* it is possible to render

render a living Body replete with electrical *Effluvia*, or to transmit and send such *Effluvia* through a living Body, in a Stream, as long as we think proper: We are *not sure* that it is impossible for these *Effluvia* to convey with them into that living Body the most subtile and active *Effluvia* of other Substances; and if they can do so, the Effects suggested are not wholly improbable; for several Experiments have proved, that a very minute Quantity of Medicine, transfused directly into the Blood, and circulating Fluids, will have the same Effect as a large Dose thereof taken into the Stomach. Therefore even this last Case, romantic as it may seem, should not be absolutely condemned without a fair Tryal; since we all, I believe, remember the Time, when those *Phænomena* in Electricity, which are now the most common and familiar to us, would have been thought deserving as little Credit, as the Case under Consideration may seem to do, had Accounts of them been sentus from *Rome, Venice, or Bologna*, and had wenever experienced them ourselves.

I am proud to seize every Occasion to assure you with what great Respect I am,

S I R,

Strand, March 28,
1748.

Your most faithful and
obedient humble Servant,

Henry Baker.